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YEARS

TECHNICAL
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Historical Survey



The over-all technical training program conducted at Chanute Air Force Base covers a wide variety of subjects and skills. It is intended that this pamphlet furnish material (both written and pictorial) to portray the scope, organization and method of operation of training activities of this Base in the accomplishment of the assigned mission.

B. E. Gates

B. E. GATES
Major General, USAF
Commanding

66075



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MISSION AND ORGANIZATION

The primary mission of Chanute Air Force Base is to provide resident technical training for both officers and airmen in the fields of weather, specialized aircraft and engine mechanics, aircraft maintenance, instrument trainer repairman, guided missiles, maintenance management, production control, flight engineering, survival, and certain crafts and trades. In addition, the non-resident training section prepares course materials in the same subject knowledge areas, in the form of OJT Courses, Reserve Specialist Training Courses and Extension Courses. Personnel from other branches of our Armed Services, as well as allied students, are also selected to attend courses in the Technical School.

In order to carry out resident training under the Wing-Base pattern of organization, direct supervision over the operation of the Technical School is vested in the Primary Mission Group or the 3345th Technical Training Group.

For administrative efficiency in the operation of the school and the conduct of the various courses, the school is organized into six (6) departments, each one of which will be discussed later in this booklet followed by a brief account of the courses conducted.

For administrative control over personnel, including students, staff and instructors, the Group is organized into a Headquarters Squadron Section, four (4) Instructor Squadrons and sixteen (16) to twenty-one (21) Student Squadrons, depending on the student load.

Insofar as practicable, students are assigned to squadrons homogeneous to the courses being pursued. The Squadron Operations Section is responsible for a counseling program, which provides maximum guidance and counseling to enable the students to successfully complete their courses.

In the last analysis, the true test of whether or not the Technical School is accomplishing its mission is determined by the calibre of its product - our graduates - and how well they perform in the field.

Chanute graduates of the past have established high standards of technical proficiency and good maintenance. For the future there is great pride and confidence that these traditions of past performance will be maintained without fail.



WELCOME

CHANUTE AIR FORCE BASE IN RETROSPECT

Chanute Air Force Base, home of the oldest and one of the leading Technical Schools in the Air Force, was established in 1917 to train pilots for World War I. July 18, 1917 marks the date when a dozen Curtis "Jennies" with an instructor and student in each took off as the first class of formal instruction at this station.

In 1921 the "Army Enlisted Mechanic School" was established at Chanute when mechanic and technician courses were transferred from Kelly Field, Texas. During the following year (1922), the Photography School at Langley Field, Virginia, and the Air Service Communications School, Ft. Sill, Oklahoma, were added to the Technical Training Program at this Base. Thus, we see that the original school embraced the fields of mechanics, photography, communications and armament.

In 1924 a clerical school was added to the curricula, but this course along with photographic and armament training were transferred to Lowry Field, Colorado, in 1938.

1938 marked the beginning of the expansion program when an appropriation of eight and one-half million dollars (\$8,500,000.00) was made for the construction of modern facilities. Buildings constructed as a result of this appropriation include all of the centrally located brick buildings, a test blocks building, and the three large hangars. The following year another appropriation was made for the construction of an additional hangar which is now designated as Hangar #3 and is somewhat smaller than the original three.

The peak period for the training of personnel in technical skills was reached during the war years (1940 - 1945) when over 200,000 men were graduated from the various courses.

With the advent of hostilities in Korea, plans were started to increase and improve the facilities for training. To provide additional space, it was decided to convert Building P-3 (Brick Barracks) into modern classrooms and build new type barracks to house the men. Improved lighting and better ventilation equipment were installed in the hangars. A peak load of 8500 students is planned by the middle of 1954.

Since the origin of technical training at this Base in 1921, many changes have taken place both in the scope of courses offered and concept of training to meet ever changing demands and requirements of the Air Force. This school has every reason to be proud of the contribution it has made and the vital part it has played in the development of the United States Air Force.



ENTRY INTO SCHOOL

NON-RESIDENT TRAINING

Non-Resident Training provides the means for further educational advancement of personnel on active duty with service organizations, members of the Reserve, personnel of the CAP or other categories associated with the defense of the United States. Members of these various groups are provided with the means of preparing themselves for greater service in their current assignment, or for new or more diversified responsibilities in the event of another emergency.

Non-Resident Training embraces three specific phases of instruction; namely, Reserve Courses, On-the-Job Training (OJT), and Extension Courses.

The mission of Reserve Courses is to prepare specialist training courses in the fields of Aircraft Maintenance and Weather. These courses are used for refresher and continuation training of Air Force Reserve personnel. All course materials are delivered to the Continental Air Command which administers the Air Force Reserve Training Program.

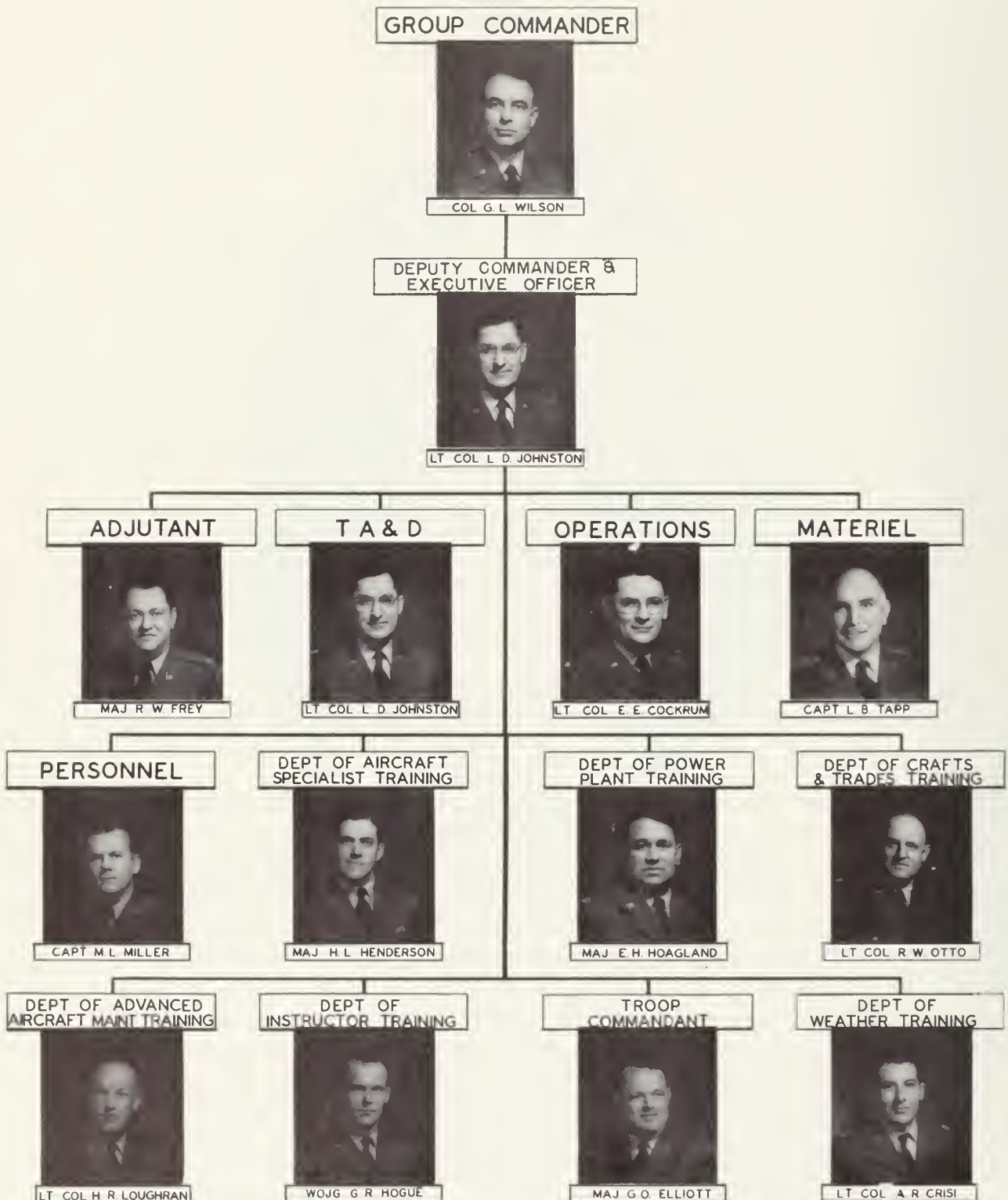
The OJT program functions in conjunction with active duty personnel. Through the medium of course materials, prepared by the OJT Section, instruction in current maintenance procedures and new techniques is presented to personnel at the operating level. This training provides the means by which actively engaged personnel can broaden their knowledge within their own specialized field, thereby preparing them for greater responsibilities and furthering their chances for advancement within the scope of the career program.

An added service is the advisory service which is extended by the OJT Section. This phase of the program provides the using organization with a training program tailored to the needs of its personnel in the fulfillment of its mission. As the need for a training program arises at the unit organizational level, these needs are presented to the OJT Section which immediately takes action to aid in setting up the desired program.

The coverage of Extension Courses is far more extensive than that offered by either Reserve Courses or OJT. The course material is available to all personnel within the jurisdiction of the Defense Department. It is written on selected courses paralleling the career fields served by the resident school. Through the medium of Extension Course material, interested personnel can fulfill the necessary educational requirements for entry into the various career fields covered by the program.

TECHNICAL SCHOOL STAFF

3345TH TECHNICAL TRAINING GROUP



CHANUTE AFB TECHNICAL COURSES

The courses offered at this Base are grouped into occupational areas and assigned to one of 6 major school departments. No attempt has been made to describe each of the very similar courses; instead, one general description is used to cover each of such groups.

- I. Department of Aircraft Specialist Training.
 - a. Aircraft Instrument Mechanic Courses.
 - b. Aircraft Electrician Course.
 - c. Aircraft Propeller Mechanic Course.
 - d. Aircraft Hydraulic Mechanic Course.
 - e. Instrument Trainer Repairman Courses.
 - f. Pneumatic Systems Repairman Course.
- II. Department of Power Plant Training.
 - a. Aircraft Reciprocating Engine Mechanic Courses.
 - b. Aircraft Jet Engine Mechanic Courses.
 - c. Rocket Propulsion and Pilotless Aircraft Courses.
- III. Department of Crafts and Trades Training.
 - a. Machinist.
 - b. Welder.
 - c. Metals Technician.
 - d. Parachute Rigger.
 - e. Fabric and Leather Worker.
 - f. Rubber Products Repairman.
 - g. Survival Training and Personal Equipment Specialist.
- IV. Department of Advanced Aircraft Maintenance Training.
 - a. Aircraft Maintenance Officer Courses.
 - b. Flight Engineer Courses.
 - c. Aircraft Maintenance Management.
 - d. Production Control.
- V. Department of Weather Training.
 - a. High Altitude Forecaster.
 - b. Weather Observer.
 - c. Meteorological Technician.
 - d. Climatological Technician.
 - e. Weather Forecasting Superintendent.
 - f. Ground Weather Equipment Operator.
 - g. Weather Equipment Technician.
 - h. Weather Equipment Superintendent.
- VI. Department of Instructor Training.
 - a. Technical Instructor.
 - b. OJT Administrator Supervisor.



AIRPLANE MECHANIC

aircraft specialist training

Instruction in the Department of Aircraft Specialist Training is of three (3) types. One type includes courses training toward the Senior Mechanic level in the Aircraft and Engine Maintenance and Aircraft Accessory Maintenance career fields. The second type includes special training courses for high level mechanics or technicians on specific new equipment. The third type trains instrument trainer mechanics for maintenance of synthetic flight trainers.



AIRCRAFT INSTRUMENT COURSES
COURSE NOS. AB40432, AB40433, AND AB43136

These courses are designed to give advanced training in the maintenance and repair of airplane instruments and related equipment to helpers or apprentice mechanics.

Graduates of these courses are trained to inspect, test, calibrate, adjust, and make minor repairs of aircraft instruments.

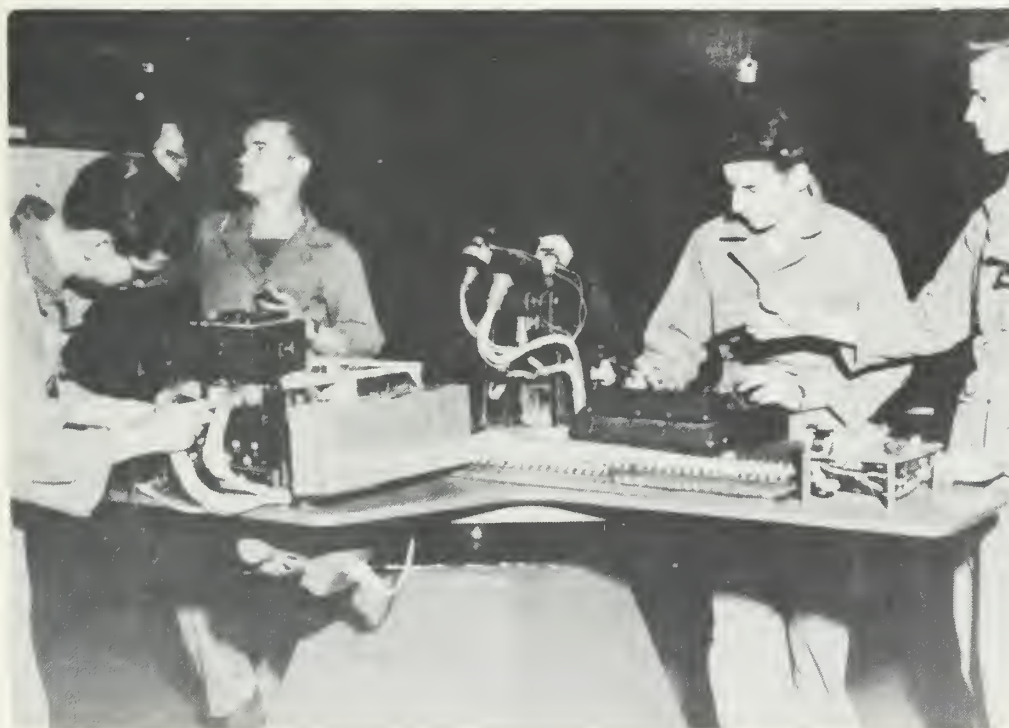
Special training instrument courses are given on the Types F-1, E-4, A-12, E-6, F-5, A-12D, W-3A, and C-1 automatic pilots for advanced students.



Using the Jeweler's Lathe to Fabricate Small Instrument Parts



Instructor Supervising a Student Bench Testing
an Airspeed Indicator



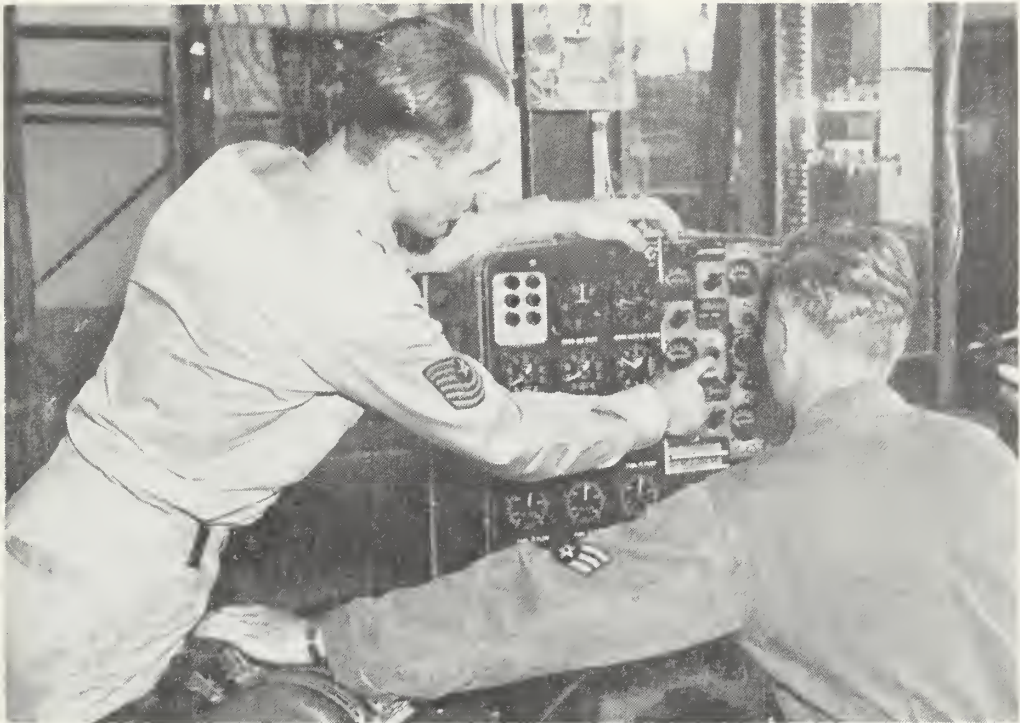
Students Trouble Shooting an E-4 Autopilot System
Under Instructor Supervision

AIRCRAFT ELECTRICIAN
COURSE NO. AB43134

Course No. AB43134 is designed to give advanced training in the maintenance and repair of aircraft electrical systems other than communications equipment to helpers and apprentice mechanics. Graduates of the course are trained to inspect, test, adjust, make minor repairs of electrical equipment, and troubleshoot both AC and DC electrical circuits with the aid of blueprints.



Trouble Shooting the Electronic Mixture
Control System



Checking an Alternator on the B-36 Flight
Engineer Panel



Locating Troubles in the F-86 Electrical Power System

AIRCRAFT PROPELLER MECHANIC
COURSE NO. AB42330

This course is designed to give advanced training in field and organizational maintenance and repair of airplane propellers and propeller control systems to helpers and apprentice mechanics.

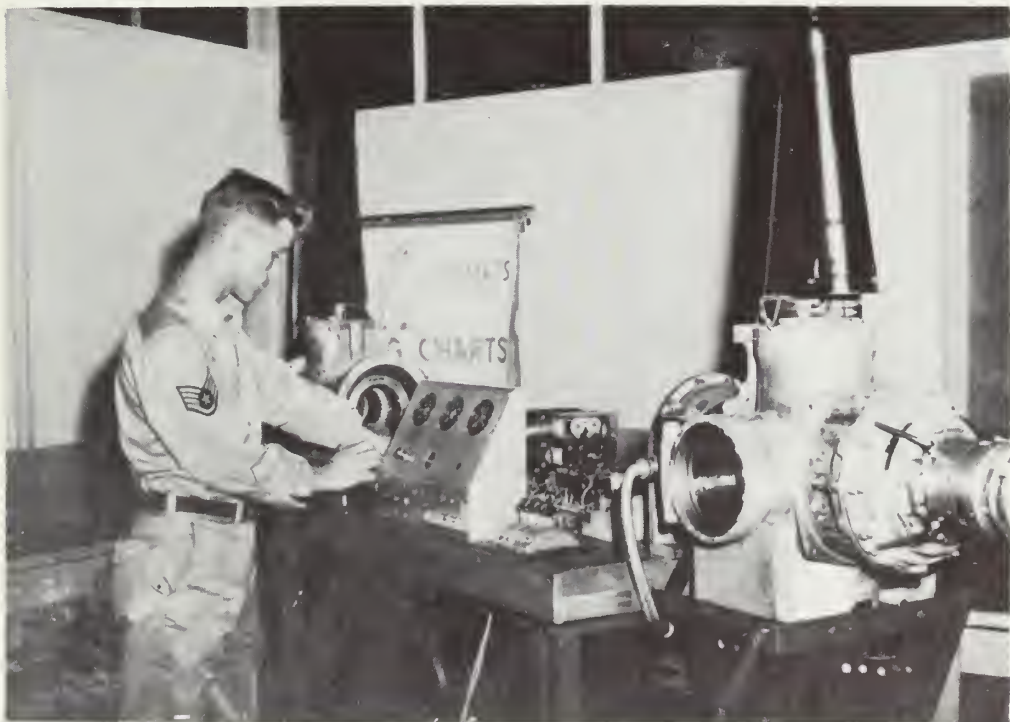
Graduates are trained to remove, install, balance, inspect, troubleshoot, service, and replace worn or defective parts of electrically and/or hydraulically operated propellers, governors, synchronizers, and de-icing or anti-icing systems.



Making a Maximum RPM Check on a Governor
Test Machine



Removing a Governor from an Aeroprop Regulator

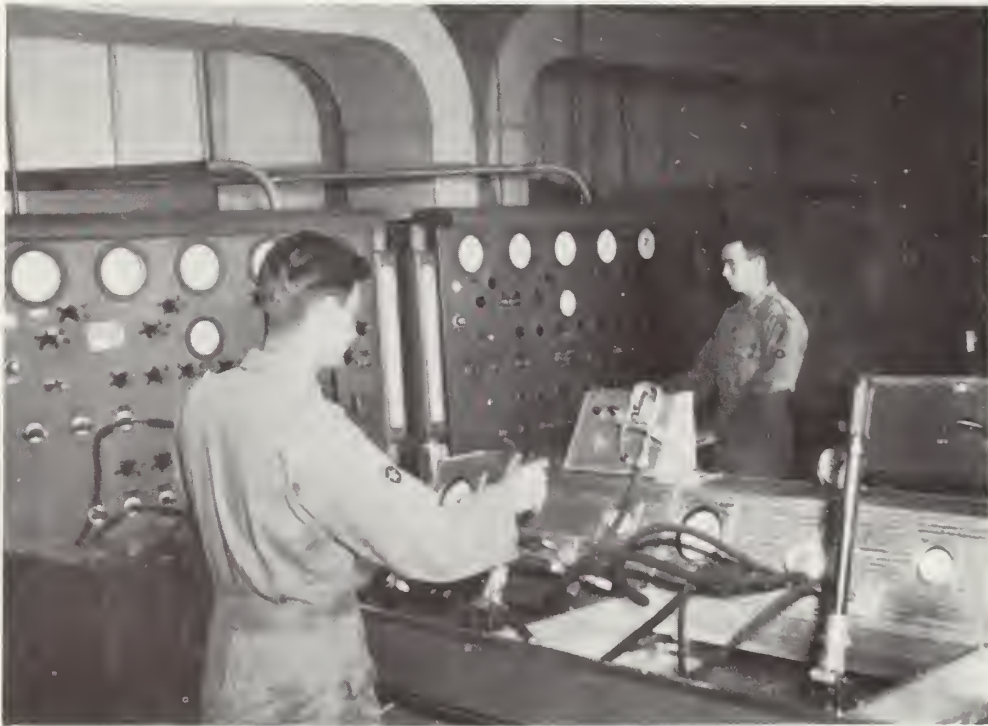


Operating a B-50 Propeller Control Synchronizer

AIRCRAFT HYDRAULIC MECHANIC COURSE NO. AB42530

This course is designed to give advanced training in the maintenance and repair of airplane hydraulic units and systems to helpers and apprentice mechanics.

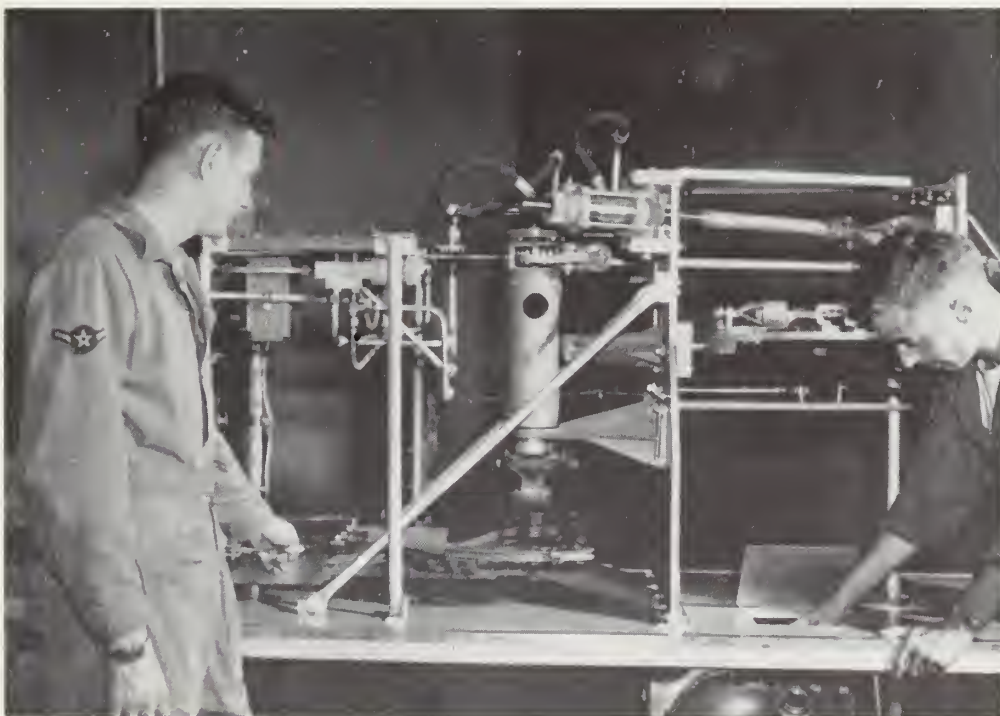
Graduates of this course are trained to repair, service, inspect, troubleshoot and adjust hydraulic units and systems used to actuate such aircraft equipment as landing gear, wheel brakes, bomb bay doors, wing flaps, and boost systems.



Operating a Hydraulic Unit Tester



Disassembly of Shimmy Damper, F-80 Airplane



Inspecting B-50 Rudder Boost

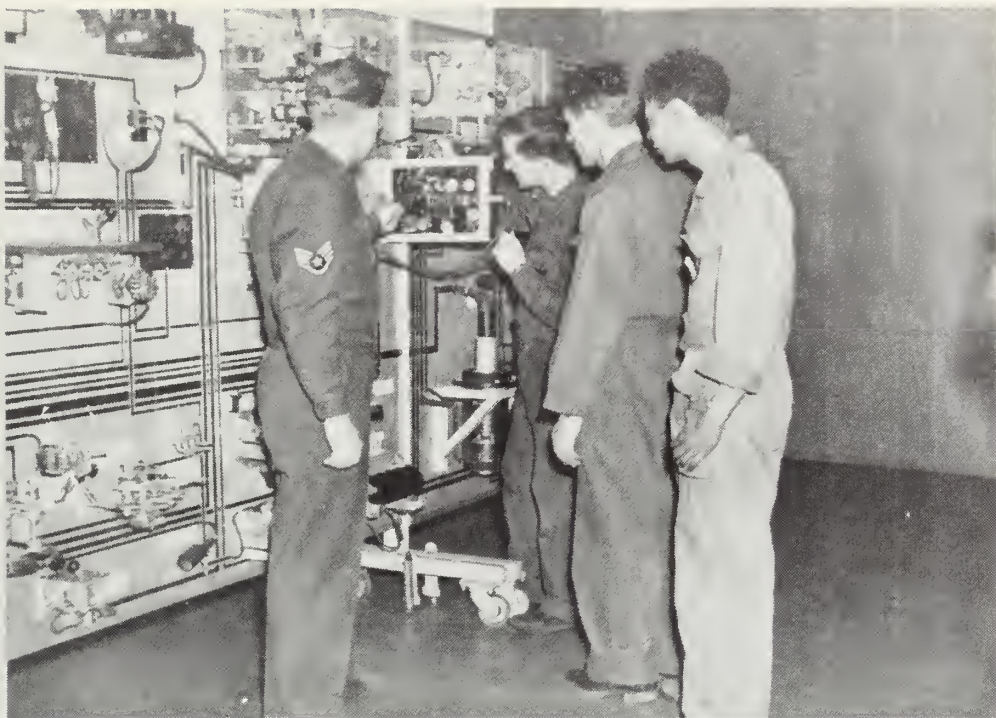
INSTRUMENT TRAINER REPAIRMAN
COURSE NOS. AB34130, AB34131A, AND AB34131B

In these courses basic airmen are trained in the installation, maintenance, and adjustment of instrument flying and landing trainers.

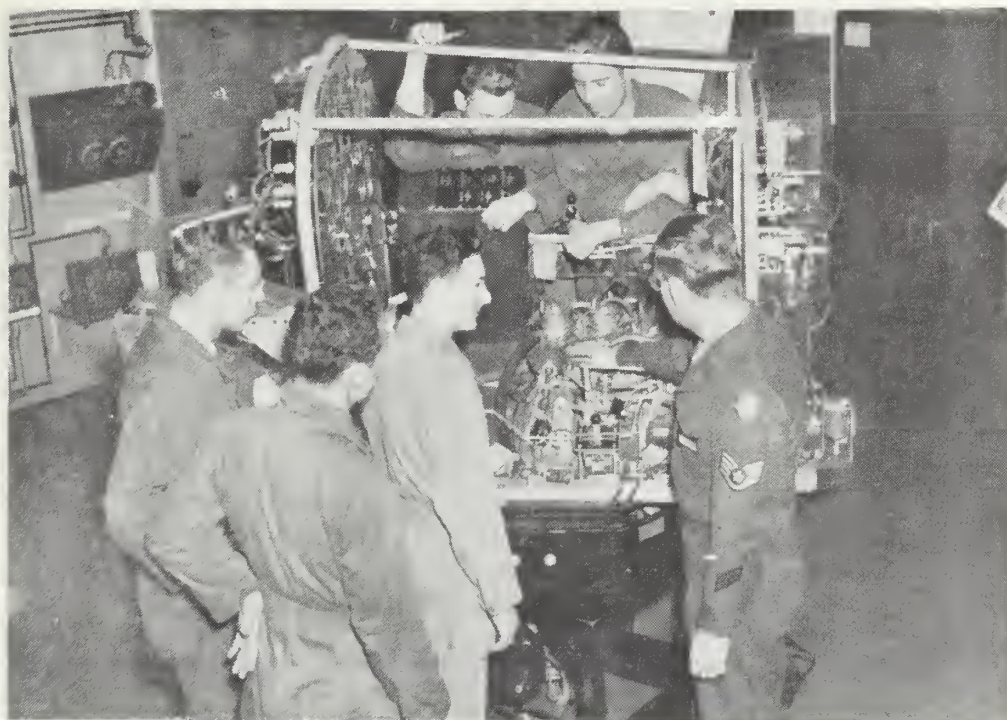
Graduates are trained to clean, lubricate, calibrate, adjust and test equipment to assure proper functioning, and to locate and correct malfunctioning by repairing or replacing defective parts.



Electrical Circuit Trouble Shooting on a
Flying and Landing Trainer



Learning a Circuit of the Flying and Landing Trainer



Getting Acquainted with the Mechanical Linkages of the Flying and Landing Trainer

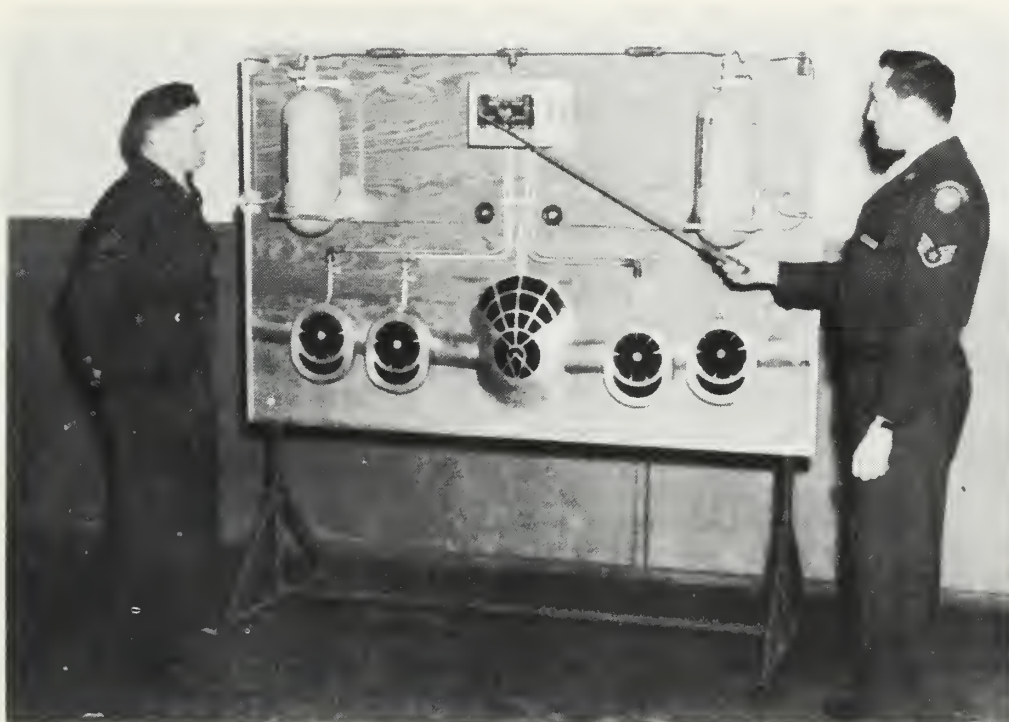
PNEUMATIC SYSTEMS REPAIRMAN
COURSE NO. AB42430

In this course, basic airmen are given training in organizational and field maintenance of such accessories and equipment as:

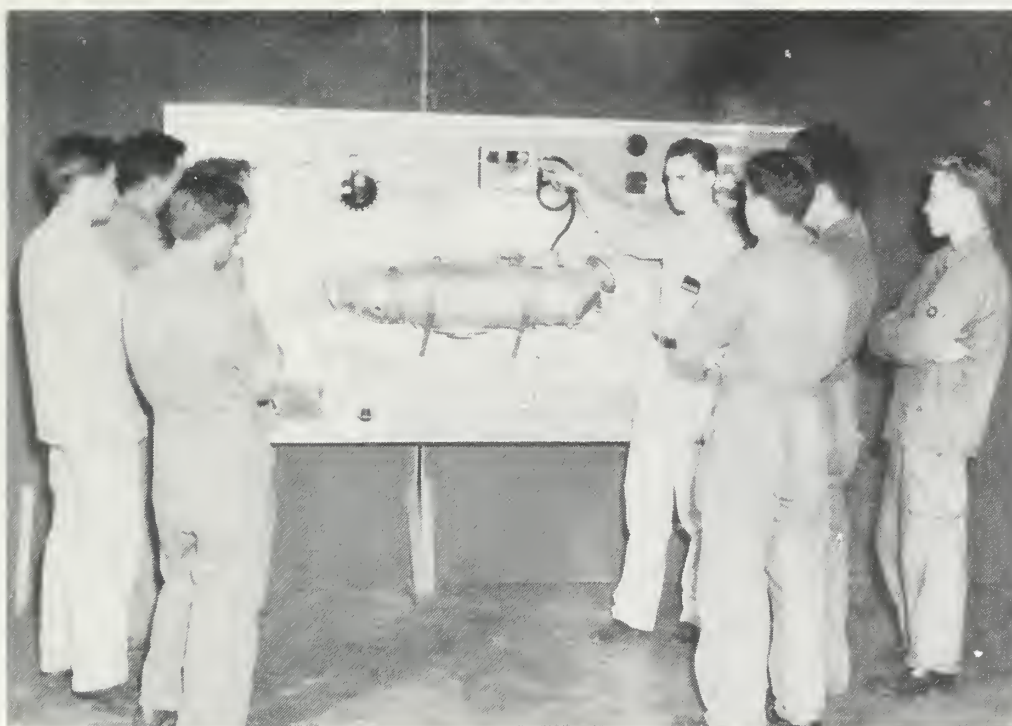
Airplane Air Conditioning Systems
Oxygen Systems
Heating, Ventilating and Cabin Pressurizing Systems
Anti-Icing and Defogging Systems
Fire Detecting and Fire Extinguishing Systems
Ventilating and Cooling Equipment
Cabin Pressure Test Equipment



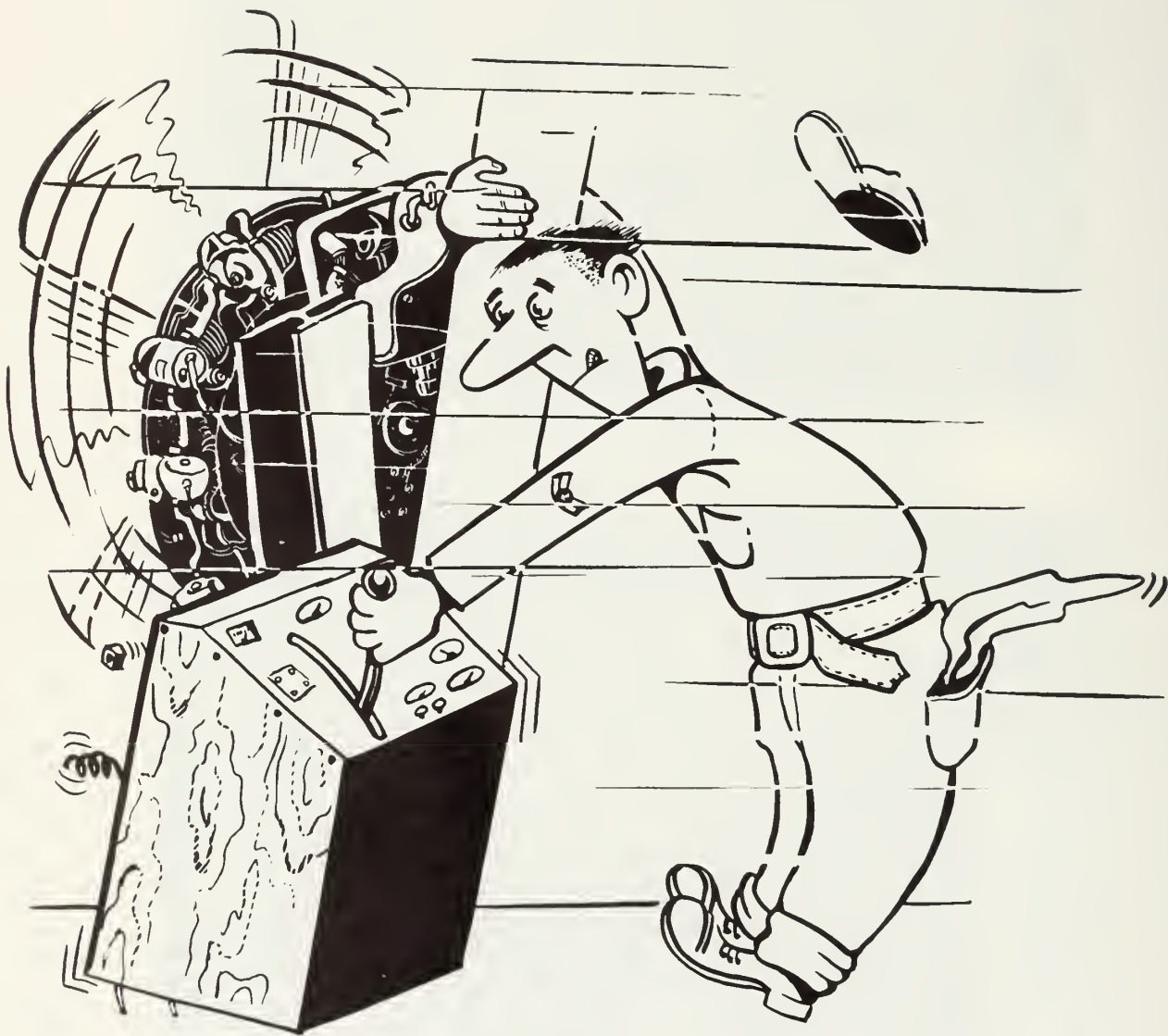
Operating the Regulator of the Oxygen System



Demonstrating the Operation of the Engine
Fire Extinguishing System



Learning the Operational Features of the B-50
Cabin Heater Electrical System



power plant training

The Department of Power Plant Training consists of Reciprocating, Jet, Rocket and Engine Operation Branches. These branches provide formal training at the three, five and seven level in the Rocket and Aircraft Maintenance Career Fields.

Instruction in this Department is of two types. One type includes training toward the Senior Mechanic level and the second type includes Special Training Courses for high level mechanics or technicians on specific new equipment.



AIRCRAFT RECIPROCATING ENGINE MECHANIC COURSE NO. AB43132A

This specialized course is designed to give advanced training in the maintenance, minor repair, and ground testing of R-4360 reciprocating engines and their accessories.

Graduates of this engine course are trained to inspect, service, adjust and make minor repairs on the engine and such accessories as carburetors, fuel and oil pumps, ignition units, fuel discharge nozzles, superchargers and related equipment.

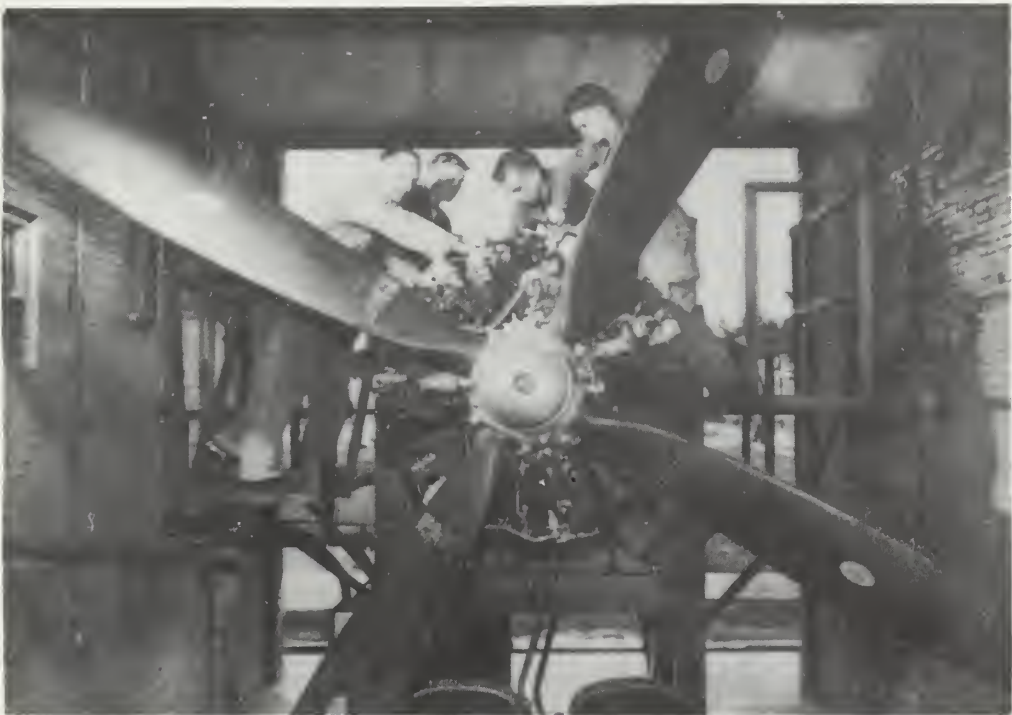
Special training courses (maintenance and operator) are given on the Bendix and Sperry analyzer for advanced students.



Learning the Operational Technique and Pattern
Interpretation of the Engine Analyzer



Making Compression Check

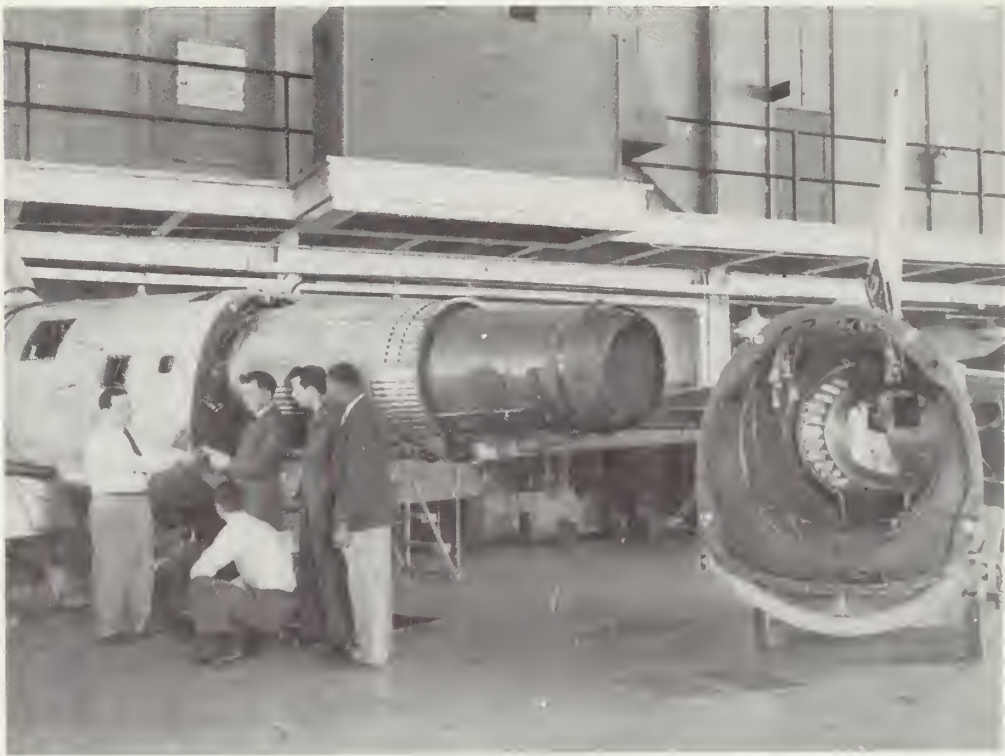


Performing Preflight Inspection of R-4360 Engine
Prior to Operation

AIRCRAFT JET ENGINE MECHANIC COURSE NO. AB43133

This course is designed to give training in maintenance, minor repair and ground run-up of jet engines. The graduates are trained to inspect, service, adjust and make minor repairs on jet engines and related equipment.

Special training courses, such as minor repair of different types of jet engines and courses on the various systems of aircraft are given for advanced students.



Major Inspection on an F-86D Aircraft Engine



Removing J-33 Turbine Wheel Buckets



Performing Preflight Inspection on J-48 Engine and Afterburner Prior to Operation

MISSILE AIRFRAME, SYSTEMS AND
POWER PLANT MECHANIC (SP B-61 AND SP B-62)
COURSE NOS. AA43171(B-61) AND AA43171(B-62)

These courses are designed to give airmen practical instruction in performing inspections, maintenance, and minor repair on pilotless aircraft.

ROCKET PROPULSION TECHNICIAN (INTERIM)
COURSE NO. AA44170I

This course trains airmen in the inspection, maintenance and minor adjustment and repair of liquid rockets. The course also gives training in the proper use, handling, and storage techniques of liquid propellants.



Protective Clothing for the Rocket Technician



Checking Electrical System Prior to Operation



Charging a Liquid Rocket



METALS TECHNICIAN

crafts & trades training

Instruction in the Department of Crafts and Trades Training covers the Metal Working (Code 53) career field; the Fabric, Leather and Rubber (Code 58) career field; and the Survival Training and Personal Equipment Specialist Course of the Aircrew Protection (Code 92) career field. The first two of these fields are within the Installation and Construction Engineering Occupational Area and the latter is within the Special Services Occupational Area. Students are given extensive practical training in the following courses:

Metal Working Career Field

Machinist
Welder
Metals Technician

Fabric, Leather and Rubber Career Field

Parachute Rigger
Fabric and Leather Worker
Rubber Products Repairman

Aircrew Protection Career Field

Survival Training and Personal
Equipment Specialist



MACHINIST, COURSE NO. AB53130

The Machinist Course is designed to give training to airmen in the manufacture of metal parts and tools using machine shop equipment. The trainee is taught to read blueprints, select metal stock, lay out work, and machine the material to close tolerances using hand tools and power-driven machines, such as lathes, milling machines, shapers, contour cutting machines, drill presses and precision grinders.



Learning the Technique of Cutting
Helical Gear Teeth



Turning an Armature Commutator on a Lathe



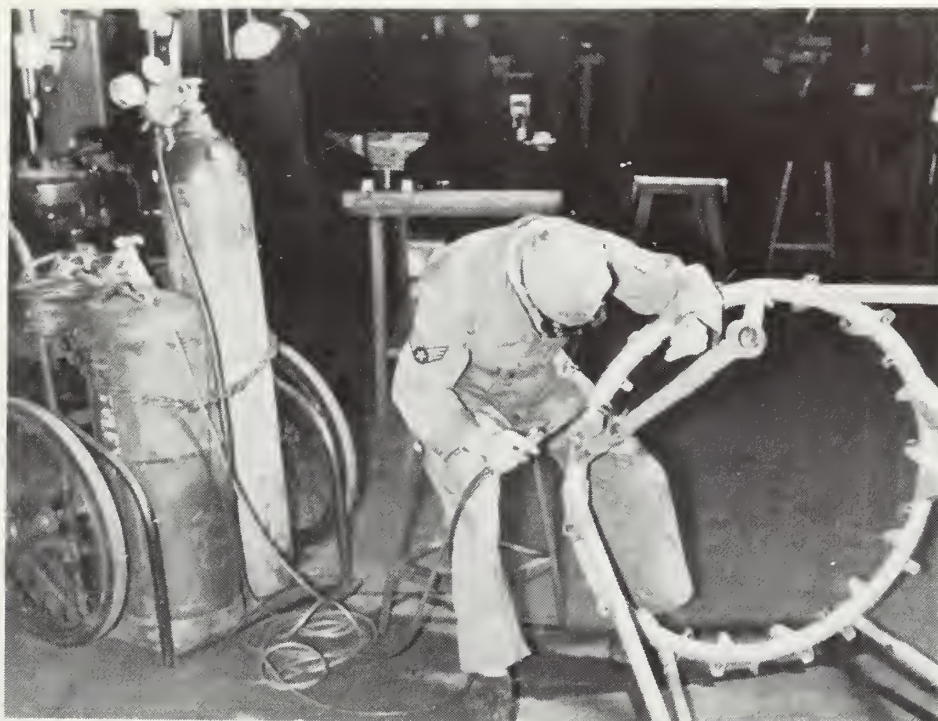
Sawing a Metal Part for a Draw Bar Hitch

WELDER, COURSE NO. AB53230

In the Welder Course, airmen are given practical instruction in oxyacetylene, oxyhydrogen, metallic arc, gas shielded, and resistance welding. Related instruction includes shop blueprint reading, Air Force publications, forging, heat-treating, and general bench metal work.



Metallic Arc Welding of Bull-Dozer Blade



Practice in Engine Mount Welding Techniques



Gas Shielded Welding of Jet Aircraft Engine Parts

METALS TECHNICIAN, COURSE NO. AA53271

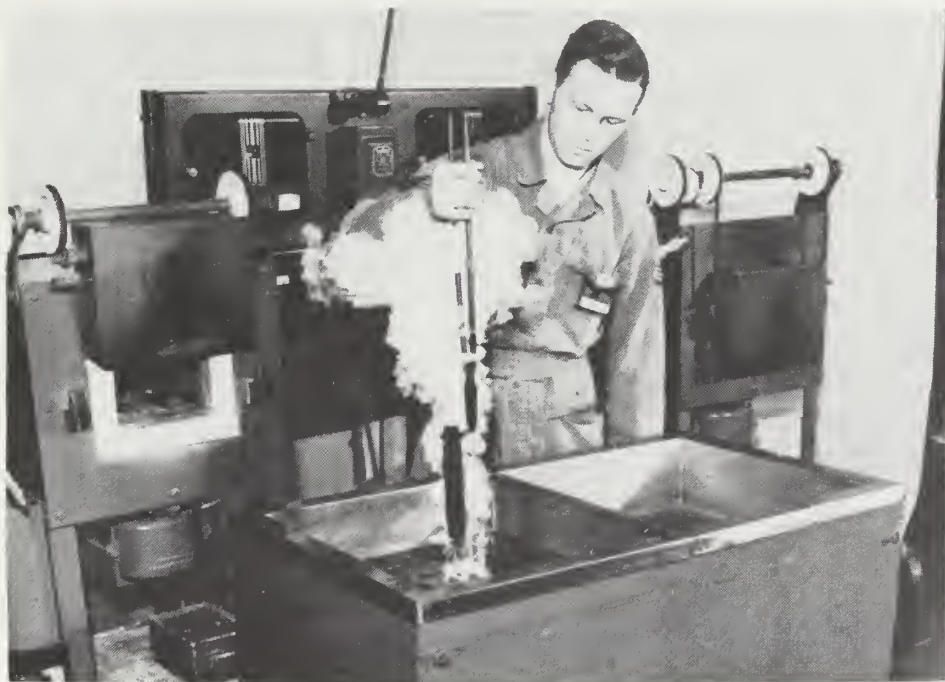
This course is designed to train experienced welders, AFSC 53250, in the technique and methods of metals processing. Trainees are instructed in identification and specifications of metals, heat treatment of ferrous and non-ferrous metals, hardening, tempering, physical testing and the inspection and plating of metals. Instruction is also given in the care and maintenance of heat treating furnaces, pyrometers and testing equipment.



Performing Fluorescent Penetrant Inspection



Maintenance of Hardness Testers



Quenching Alloy Steel Parts

PARACHUTE RIGGER, COURSE NO. AB58130

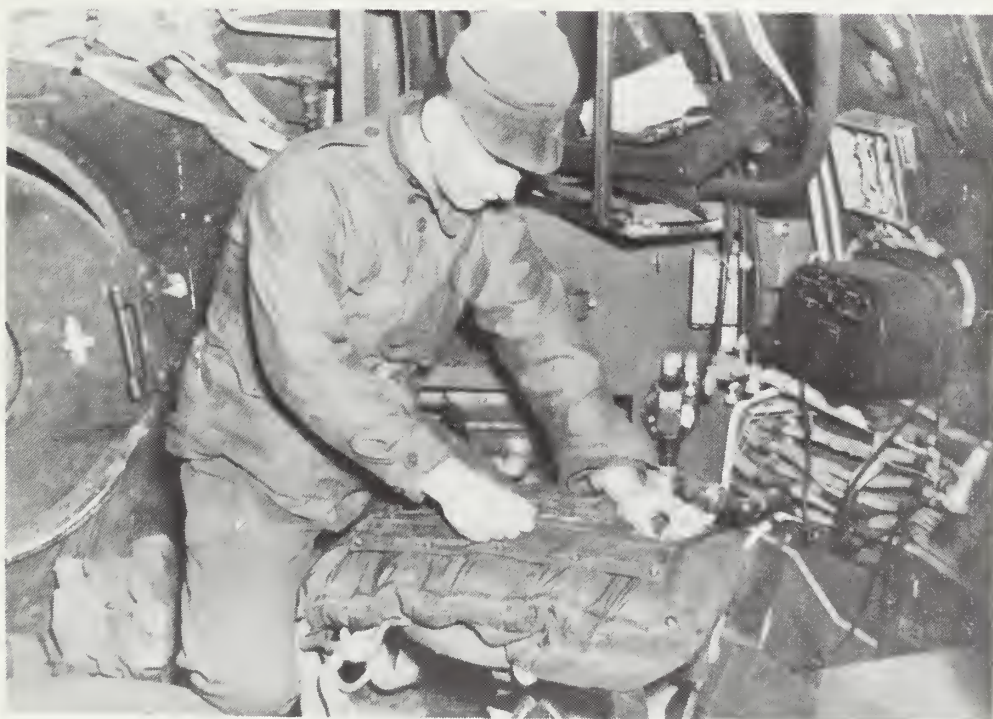
Airmen in this course are given practical instruction in the cleaning, storage, shipment, inspection, repair, packing, drop testing and fitting and adjustment of personal, deceleration, aerial delivery and cargo parachutes.



Drop Testing a Parachute



Packing Seat Style Parachutes



Performing a 10-Day Inspection on Parachutes Stored in Aircraft

FABRIC AND LEATHER WORKER
COURSE NO. AB58131

Airmen in this course are taught the repair and fabrication of fabric and leather articles. Instruction includes operation, maintenance and adjustment of standard and special duty sewing machines.



Doping Airplane Control Surfaces



Fitting a Cover on a B-47 Nacelle



Installing a Fabric Cover on a B-50 Elevator

RUBBER PRODUCTS REPAIRMAN
COURSE NO. AB58230

This course is designed to train airmen to inspect and repair rubber items and rubberized equipment.



Repairing a Pneumatic Life Raft



Repairing a B-47 Nylon Pliocel Fuel Cell



Repairing an Anti-"G" Suit

SURVIVAL TRAINING AND
PERSONAL EQUIPMENT SPECIALIST
COURSE NO. AB92230

This course is designed to give training to airmen in survival techniques employed in arctic, desert, tropic and water areas; in the use, inspection, fitting and minor repair of personal equipment; in the principles of organization and operation of a Survival Training and Personal Equipment Section; and in the techniques of instructing air crews in personal equipment and survival procedures.



Inspection and Use of Pneumatic Life Rafts



Parachute Briefing Prior to Take-Off



Living Under Survival Conditions



advanced aircraft maintenance training

The Department of Advanced Aircraft Maintenance Training consists of five formal courses.. For selected officer personnel, training is given in:

Aircraft Maintenance Officer.
Aircraft Maintenance Officer (Reserve).
Aircraft Maintenance Management.

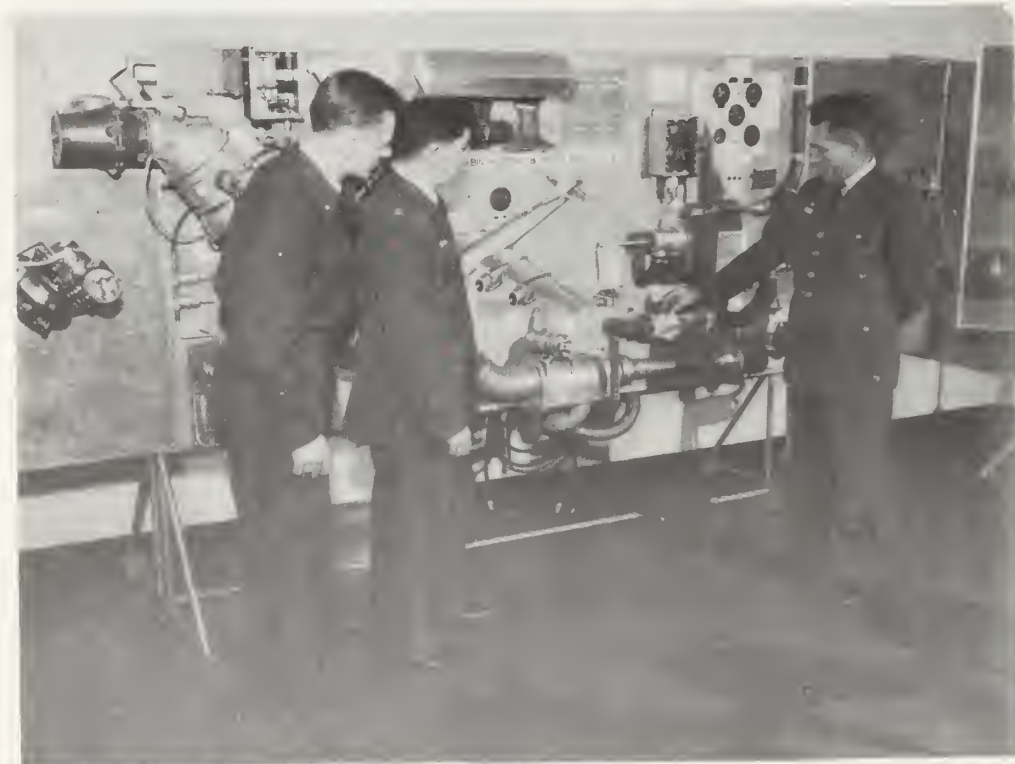
Selected airmen are given advanced or lateral training in one of the following courses:

Flight Engineer Technician.
Production Control.



AIRCRAFT MAINTENANCE OFFICER
COURSE NO. OB4341

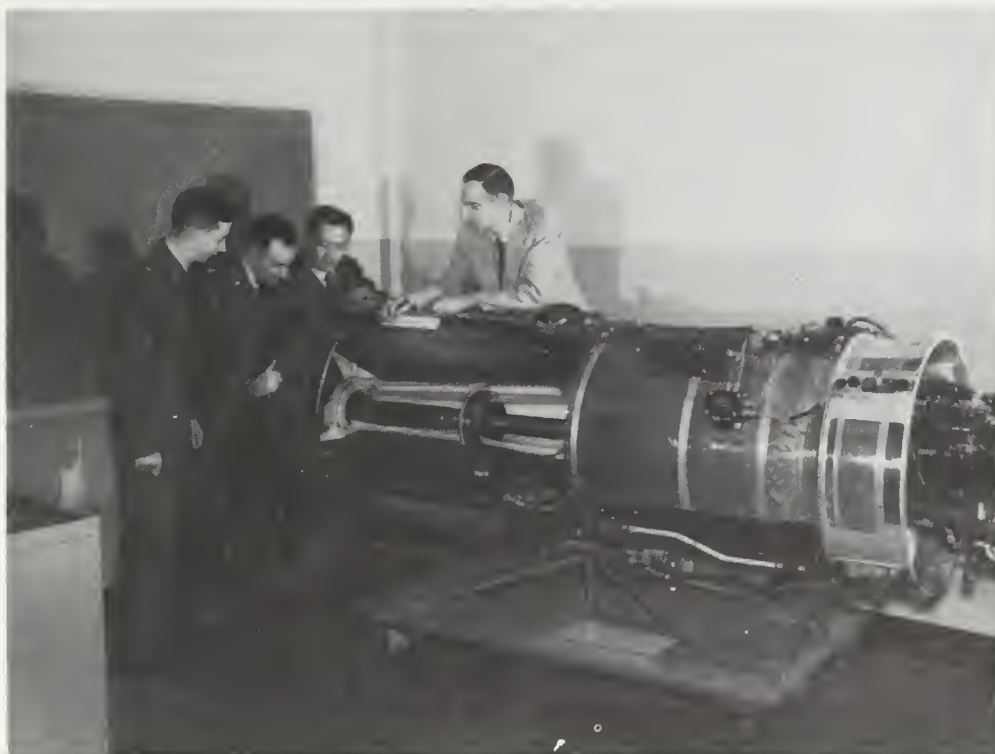
This course is designed to train and qualify officers as aircraft maintenance officers for duty as supervisors of organizational and field maintenance activities in Air Force organizations. Instruction in this course includes such subjects as Administration and Management; Air Force Shop Functions and Aircraft Structures; Electrical, Electronic and Instrument Systems; Miscellaneous Systems and Ground Equipment; Aircraft Power Plants; Engine Operation and Conditioning, Power Plant Change and Aircraft Inspections; and Weight and Balance.



Operation of Cabin Heating and Ventilating System Units



Demonstration of the E-4 Autopilot



Theory of Operation of Jet Engines

AIRCRAFT MAINTENANCE MANAGEMENT
COURSE NO. OA4311

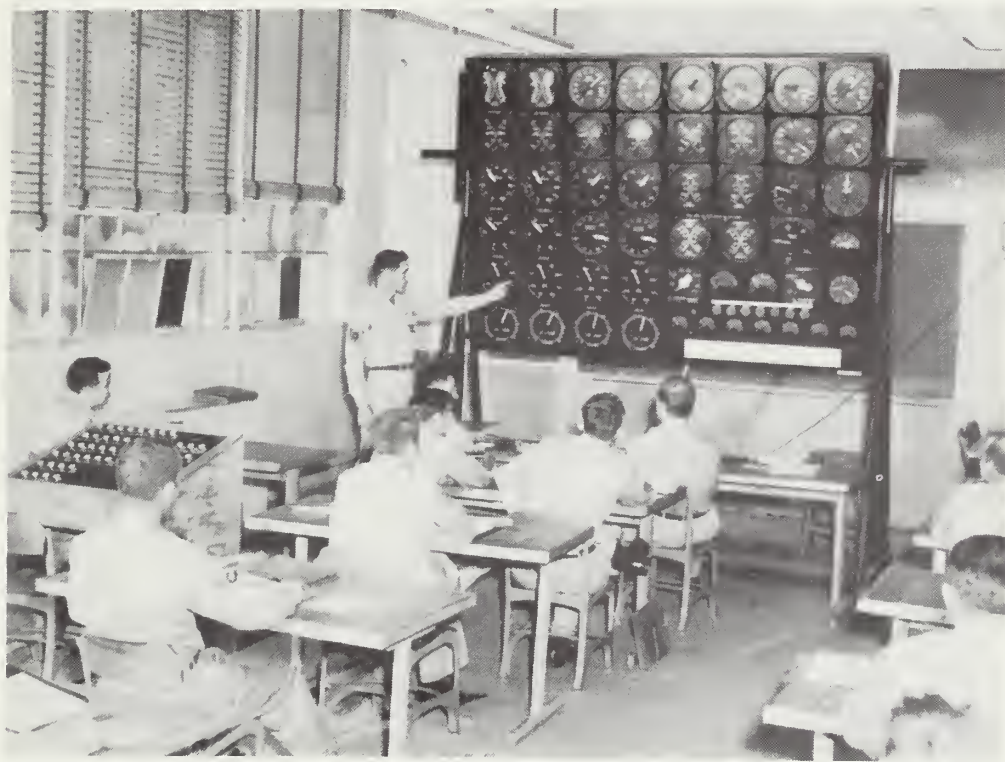
This course is designed to give advanced training in management subjects to officers who are technically qualified and experienced Aircraft Maintenance Officers.



Solving Aircraft Maintenance Management
Problems by Group Discussion

FLIGHT ENGINEER TECHNICIAN (PREFLIGHT)
COURSE NO. AA43271

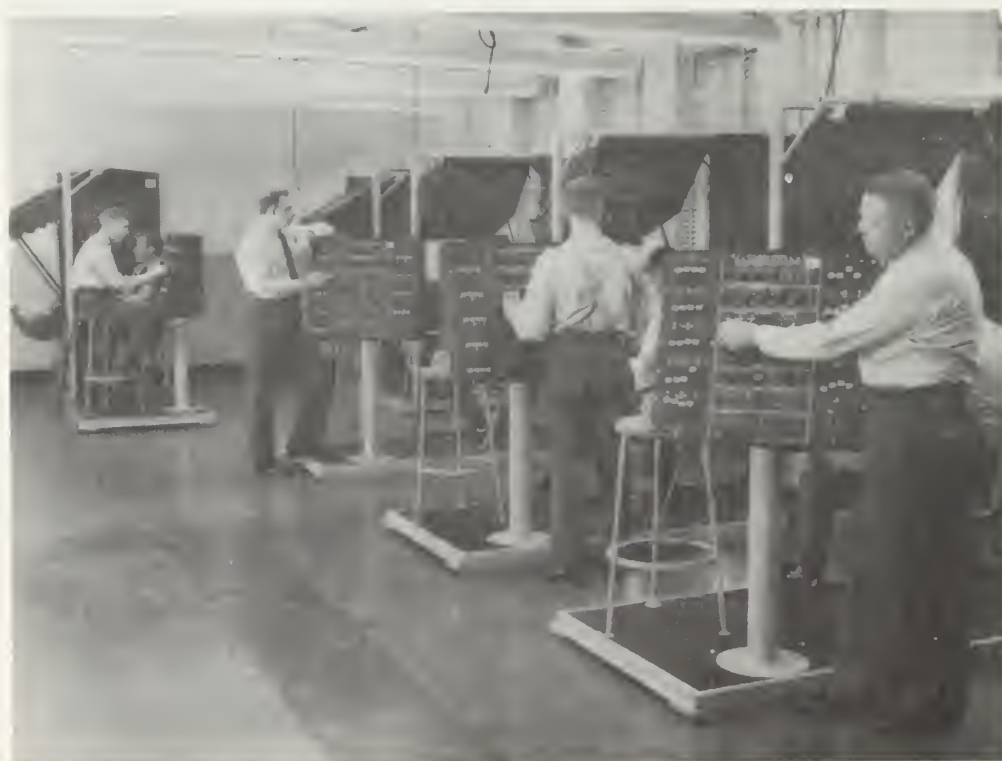
This course is designed to give training to selected airmen with experience as airplane mechanics in operation and inspection of medium bombardment and cargo type airplanes, and in the control of the performance of such airplanes during flight.



Aircraft Performance Problems



Demonstrating the Constructional Features of an R-4360 Engine



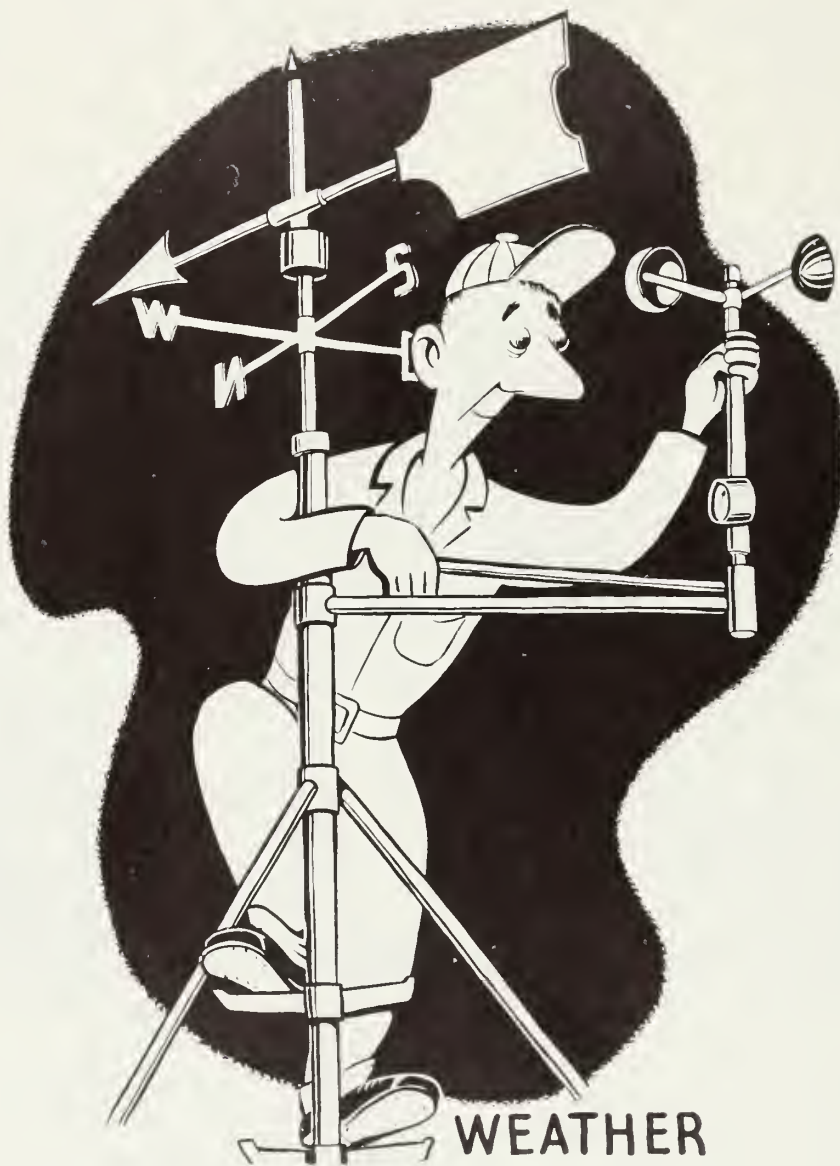
Learning Aircraft Operation from the Flight Engineer's Station

PRODUCTION CONTROL, COURSE NO. AL80270

Airmen who are experienced in maintenance or who are serving as an apprentice in Production Control are instructed in the methods, procedures, and forms used in Production Control activities.



Demonstration of a Projected Flying Schedule for Aircraft



weather training

The mission of the Department of Weather Training is to train officers and airmen for duty in various branches of the weather field. The courses conducted are designed to give basic and up-grade training in the observing, analysis, and forecasting of weather phenomena; and in the operation and maintenance of electronic and non-electronic equipment used in the observing, recording, and transmission of weather data.

The High Altitude Forecaster Course is offered to officer personnel.

Courses offered to airmen include:

- Weather Observer.
- Meteorological Technician.
- Climatological Technician.
- High Altitude Forecaster.
- Weather Forecasting Superintendent.
- Ground Weather Equipment Operator.
- Weather Equipment Technician.
- Weather Equipment Superintendent.

An explanation of training within the courses of this department follows:



WEATHER OBSERVER, COURSE NO. AB25230

This basic weather course is designed to train specially selected airmen in the theory and practice of weather observing as employed by the United States Air Force. Graduates are trained in the care and use of standard weather instruments and equipment; observing and recording the instrumental and non-instrumental data; encoding and decoding weather data; and operation and care of standard communication equipment.



Weather Observer Students in a Training Station



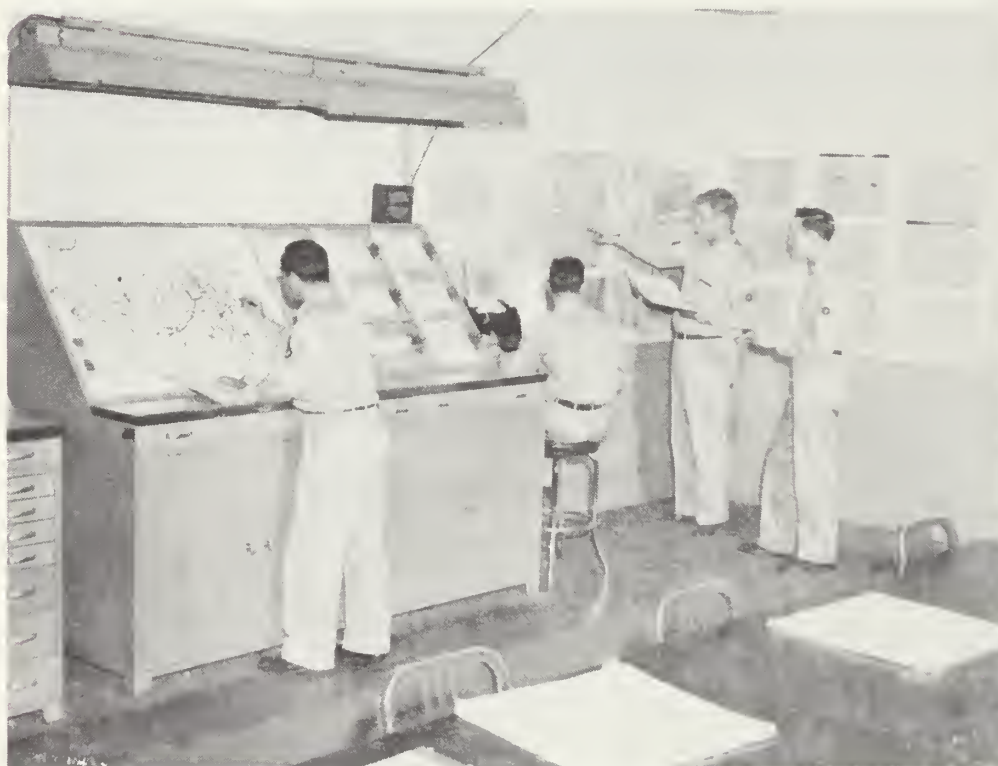
Weather Instruments Classroom



Taking Surface Weather Observations

METEOROLOGICAL TECHNICIAN, COURSE NO. AA25270

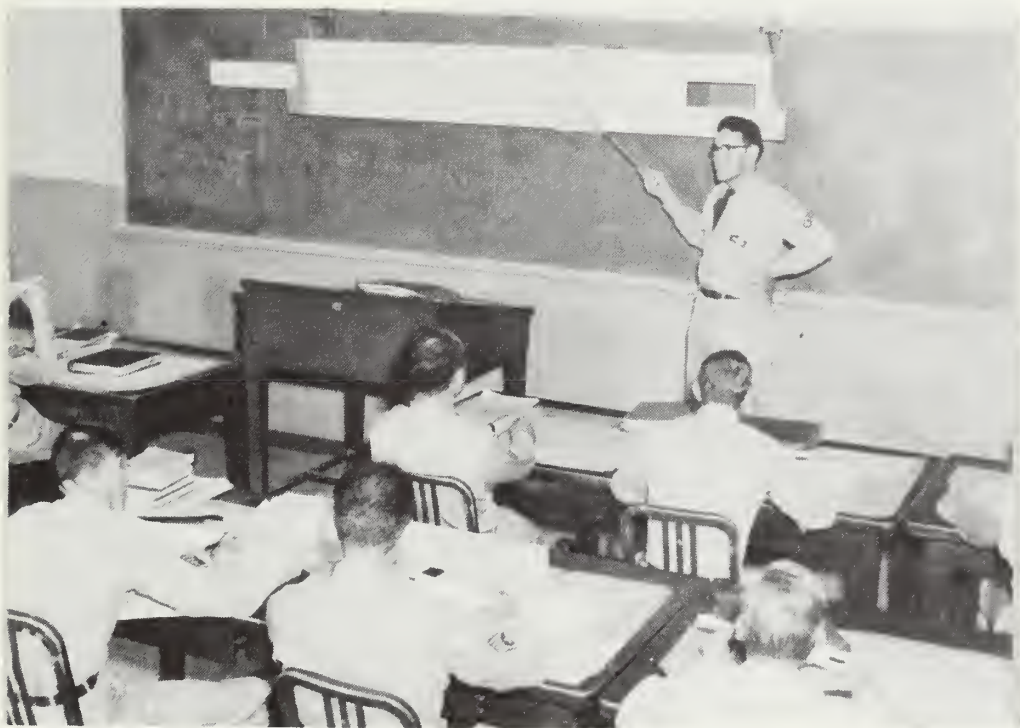
This weather course is designed to train senior weather service airmen in the analysis of weather maps and charts, preparation of detailed weather information for forecasts and briefings, and routine operation of weather stations. Graduates are trained to prepare, analyze, and interpret surface, upper air, and associated meteorological charts necessary for the local, route, and area forecasts.



Weather Station Training (School Training Station)



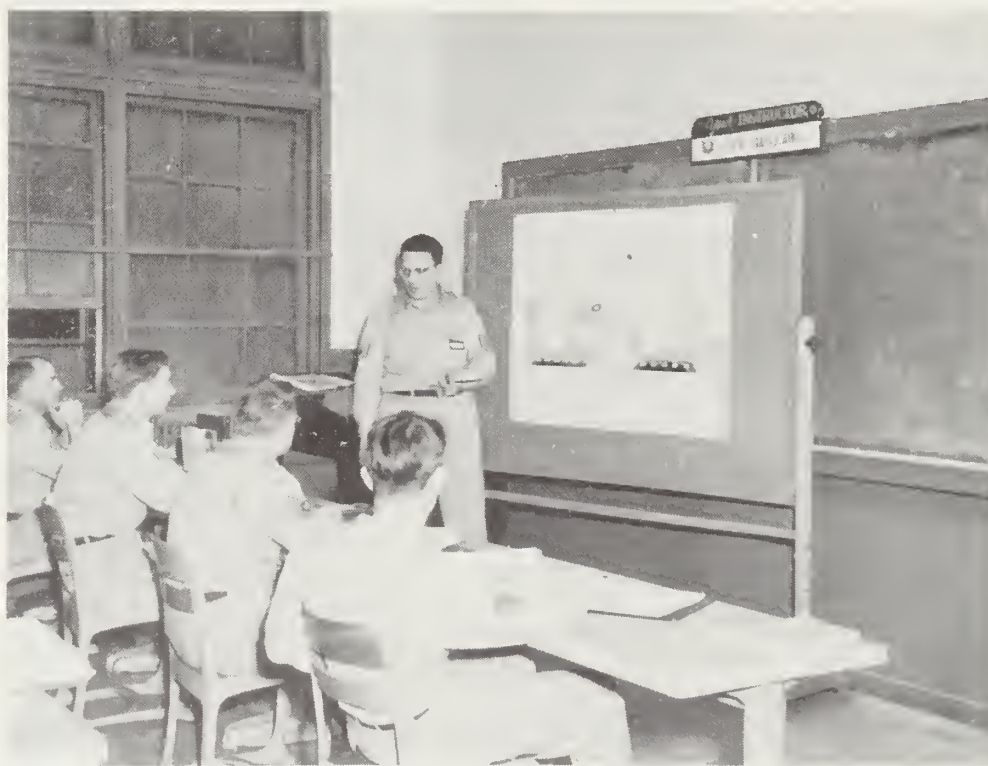
Instruction in Air Mass Analysis



Instruction in Slide Rule Operation

CLIMATOLOGICAL TECHNICIAN, COURSE NO. AL25271

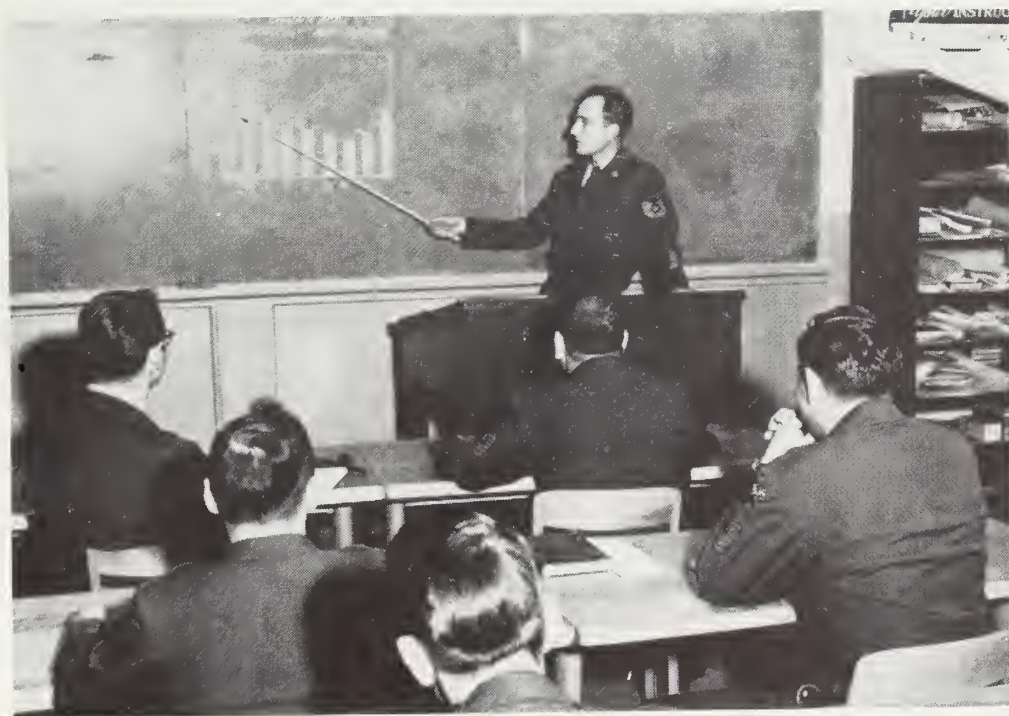
This course is designed to give additional specialized climatological training to selected meteorological technicians and climatographers. Graduates are trained in the methods of collecting, analyzing, and interpreting historical weather records for use in the solution of practical military problems outside the scope of normal forecasting techniques.



Classroom Study of Climatological Data



Tabulating, Summarizing and Analyzing Climatic Data



Student Reporting Findings in the Solution of a Problem
in Applied Climatology

HIGH ALTITUDE FORECASTER, COURSE NO. XX2524

Training is offered in this course to selected officers and airmen who are qualified Weather Officers and Forecasters. This is a special course designed to qualify graduates for duties involving forecasting for high altitude flights. Graduates are trained to analyze and forecast weather phenomena including the jet stream in the vicinity of the tropopause.



Instruction in Differential Analysis



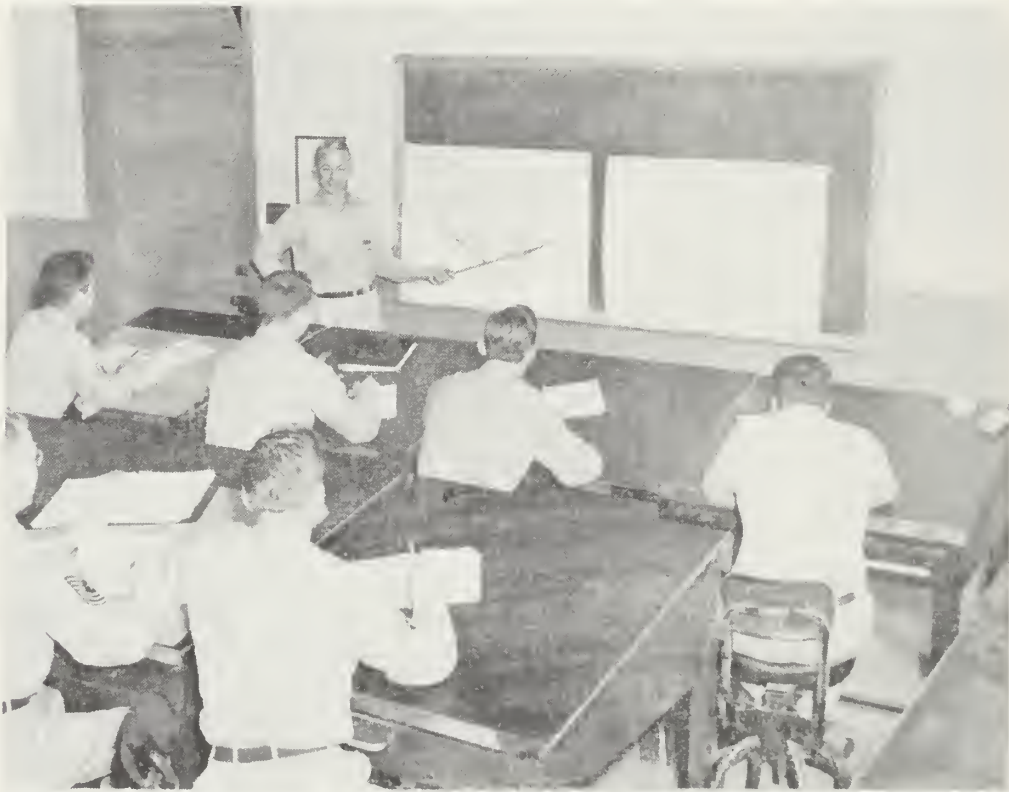
Classroom Instruction on Upper Air Charts



Checking the Contour Lines on Upper Air Charts

WEATHER FORECASTING SUPERINTENDENT
COURSE NO. AA25200

This course is designed to give advanced meteorological training to weather forecasters and technicians. Graduates are trained to prepare and issue all types of weather forecasts and briefings, and to direct operation of weather stations.



Study of Temperature Distribution in the Stratosphere



Instruction in Oceanography



Studies of Motion in the Atmosphere

GROUND WEATHER EQUIPMENT OPERATOR
COURSE NO. AB25130

This basic weather course is designed to train specially selected airmen in the basic theory and practice of weather observing and weather equipment operation as employed in the United States Air Force. Graduates are trained to operate radiosonde, rawinsonde, and other related electronic weather equipment to determine wind, temperature, and moisture conditions at various heights in the atmosphere.



Evaluating Data Received by the Radiosonde Receptor



Training on Maintenance of Ceilometer Equipment
(Cloud Height Measuring Equipment)



Releasing Rawinsonde Flight Equipment

**WEATHER EQUIPMENT TECHNICIAN
COURSE NO. AA25171**

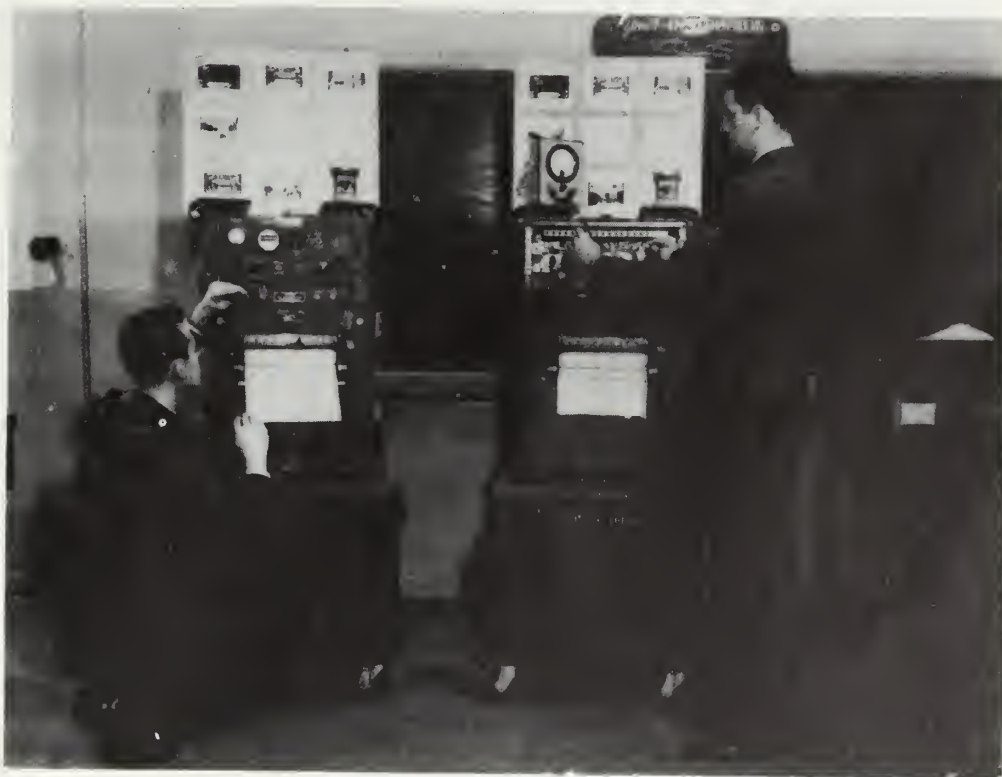
Training is based upon the application of electronics to specialized weather equipment. Graduates are trained to install, inspect, and maintain electronic weather equipment.



Troubleshooting and Repairing Radar Storm Detection Equipment



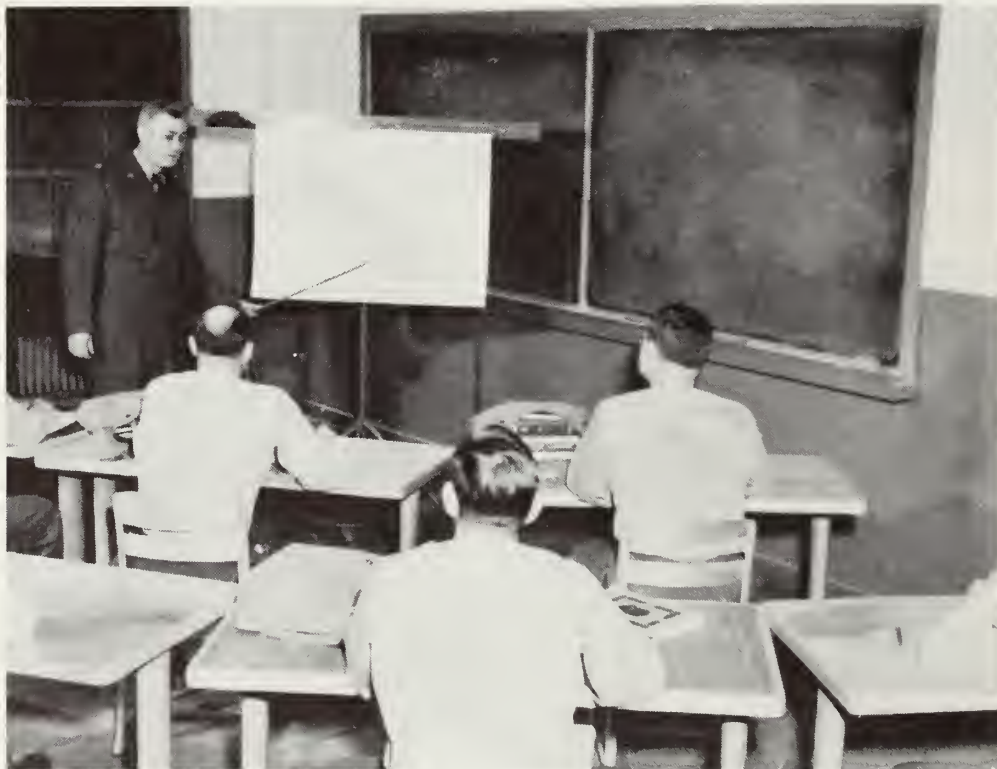
Maintenance of Rawin Set (Weather Balloon Tracking Equipment)



Troubleshooting and Calibrating the Radiosonde Receptor

WEATHER EQUIPMENT SUPERINTENDENT
COURSE NO. AA25100

This course is designed to broaden the knowledge of specially selected weather equipment supervisors and weather equipment technicians in the theoretical concepts and their practical applications in the weather equipment field. Graduates are trained in the planning procurement, installation, and operation of meteorological equipment, including its capabilities and limitations and the modification possibilities that may be employed under abnormal conditions.



Instruction in the Development of New Weather Equipment
by a Guest Lecturer



Discussion of Electronic Circuits



Student Conducted Seminar on Automatic Balloon
Tracking Equipment



instructor training

This Department, through the Technical Instructor Branch, conducts two formal courses: the Technical Instructor Course designed to train airmen, officers and civilians in the methods and techniques of teaching their specialty; and the OJT Administrator Supervisor Course.

The Field Service Branch conducts collateral training in school Supervision, Counseling, NCO Leadership and such Field Service projects as are required by the Technical Training Group.



TECHNICAL INSTRUCTOR, COURSE NO. AA75100

Specific subjects of training within this course are: oral expression, study habits, effective learning, teaching methods and techniques, classroom and student management, instructional aids, lesson planning, grading and testing, and practice teaching.



Instruction in the Use of Visual Aids in Teaching



Giving a Practice Lecture for Student Analysis and Discussion



Use of the Tape Recorder in Speech Training

THE USE OF EQUIPMENT IN TRAINING

Throughout the foregoing section (Chanute Air Force Base Technical Courses) it may be noted that the illustrations depicting instructional situations in the various courses show a wide variety of equipment used in many different ways. Some of the more frequent uses to which aircraft equipment is put are as:

- Cut-aways to show internal construction.
- Items for disassembly and assembly purposes.
- Equipment for use in bench testing.
- Items for removal and installation practice.
- Assemblies of equipment and parts to comprise working replicas (trainers) of airplane systems.

As a further explanation of the uses to which trainers are put, a general discussion of the following is included:

The Need for Trainers: In most instances the development of a trainer is brought about by the need of the classroom instructor for an aid in the teaching of some airplane system.

Types of Trainers: Trainers are prepared to show the equipment employed in a particular airplane system, to include common troubles for diagnosis and correction, and as complete operating replicas.

Common Trainer Systems: When new types of aircraft are manufactured, trainers are usually prepared to give technical instruction on:

- Hydraulic systems (may be one or several systems).
- Electrical systems.
- Instrument systems.
- Fuel systems.
- Oxygen systems (when different from ordinary types).
- Fire extinguishing systems.
- Assist take-off systems.
- Heating, ventilating and pressurizing systems.
- New and different features such as:
 - Auto dive brakes.
 - Pilot ejection seat.
 - Slots.
- Engine cut-aways and exploded models.

Number of Trainers Employed: There are approximately 1550 trainers in use throughout the school. 1400 were manufactured in the Training Aids Section of this school and 150 are standard trainers. The Training Aids Section is currently preparing new trainers at the rate of 40 per month.





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